

CLAIMS

I claim:

Sub 1
a7
1. A method for manufacturing a pleatable filter material from a thermally bonded non-woven fabric, comprising the steps of:

forming a fibrous web from drawn and undrawn synthetic fibers;

calendering the fibrous web;

bonding the fibrous web in a tension-free manner between profiled calender rolls, without inhomogeneities over the cross-section of the non-woven fabric and without the use of flat bonding;

forming spacers in the filter material.

Sub 2
a7
2. The method of claim 1, further comprising the step of: preheating the fibrous web and then guiding the fibrous web between heated calender rolls.

3. The method of claim 1, further comprising the step of: preheating the fibrous web and then guiding the fibrous web between cooled calender rolls.

4. The method of claim 1, further comprising the step of: guiding the fibrous web, unheated, between heated calender rolls.

5. A filter material produced by the method comprising the steps of:

forming a fibrous web from drawn and undrawn synthetic fibers;

calendering the fibrous web;

bonding the fibrous web in a tension-free manner between profiled calender rolls, without inhomogeneities over the cross-section of the non-woven fabric and without the use of flat bonding;

forming spacers in the filter material.

6. The filter material of claim 5, wherein:

the spacers are formed by elevations in the calender rolls whose height is at least one quarter of a thickness of the filter material.

7. A device for producing a filter material comprising:

two calender rolls, each calendar roll comprising an essentially sinusoidal surface profiling extending in an axial direction of the calender rolls.

8. The device of claim 7, wherein:

the ratio of a height of the surface profiling in a radial direction of the calender rolls and the axial width between adjacent vertices of the surface profiling is 0.1 to 0.2, and wherein the surface profiling extends around an entire circumference of the calender rolls.